

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE****Inventor(s):** Brian WYLD**Serial No.:** Not Yet Assigned**Examiner:** To Be Determined**Filed:** Herewith**Group Art Unit:** Unknown**Title:** EXTERNAL FAULT TOLERANT SHARED MEMORY UNIT IN A  
DISTRIBUTED MULTIPROCESSING SYSTEM**BOX PATENT APPLICATION**Assistant Commissioner for Patents  
Washington, D.C. 20231**PRELIMINARY AMENDMENT**

Prior to the examination of the above-identified application, please amend this application as follows:

**IN THE CLAIMS:**

Please delete claims 1-8, and insert therefor the following claims:

9. A distributed multiprocessing system, comprising:
  - at least two hosts connected to a network, wherein each host has a processing unit and internal memory accessed by the processing unit; and,
  - a fault tolerant external memory unit, wherein each host further comprises an access device connected to the external memory unit, and the access device provides the processing unit of the host with a transparent access to the external memory unit.
10. The system of claim 9, wherein the processing unit has an access time to the external memory unit less than three orders of magnitude larger than an access time to the internal memory.
11. The system of claim 9, wherein the processing unit has an access time to the external memory unit at least two orders of magnitude smaller than an access time to another host through the network.
12. The system of claim 9, wherein the access device in a host is connected to a bus, and access time to the external memory takes place in less than one cycle of the bus.

13. The system of claim 9, wherein the access device has a memory-mapped connection to the processing unit and a driver connected to both the memory-mapped connection and the external memory unit.
14. The system of claim 9, wherein the access device has an internal memory module-like connection connected to the processing unit through a memory bus, and a driver connected to both the internal memory module-like connection and the external memory unit.
15. The system of claim 9, wherein the external memory unit comprises:  
at least two access server devices, each connected to the access device of a host; and,  
a fault tolerant memory connected to each server device.
16. The system of claim 15, wherein the fault tolerant memory comprises a request server connected to the server devices.
17. The system of claim 16, further comprising:  
two memory controllers connected to the request server, wherein each memory controller is connected to one or more memory banks.

#### REMARKS

The examiner is respectfully requested to consider this preliminary amendment prior to examination of the application. No new matter has been added.

Please grant any required extensions of time and charge any fees due in connection with this request to Deposit Account No. 08-2025.

Respectfully submitted,

WILMER, CUTLER & PICKERING

Dated:

January 8, 2001

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